

Datasheet



Mouse mAb to **CD54 (ICAM-1)**
Clone **EBS-CD-031**
Isotype **IgG2b-κ**

Source

A BALB/c mouse was immunized with Raji Burkitt lymphoma cells.
Fusion partner: NS-1.

Specifications

EBS-CD-031 was typed at the CD Workshop IV. Binding of EBS-CD-031 blocks cell adhesion through ICAM-1 as does ICAM-1 synthetic peptide JF9 (aa 367-394), suggesting the epitope of EBS-CD-031 lies between aa 367-394 (domain 1). ICAM-1 belongs to the immunoglobulin superfamily, C2 subset, is a transmembrane molecule of 90 kDa with 7 potential N-glycosylation sites. It is expressed on resting monocytes and endothelial cells and in response to inflammatory cytokines such as TNF-alpha, IL1 and IFN-gamma, can be highly upregulated on many other cells, e.g. on B- and T-lymphocytes, thymocytes, dendritic cells and also on keratinocytes to integrin CD11a/CD18 (LFA 1) and to CD11b/CD18 (Mac 1). The interaction of CD54 with LFA 1 enhances antigen specific T-cell activation. CD54 also binds to CD43, fibrinogen, most human rhinoviruses and to Plasmodium falciparum infected erythrocytes. ICAM-1 may also be related to progression and metastasis of tumors.

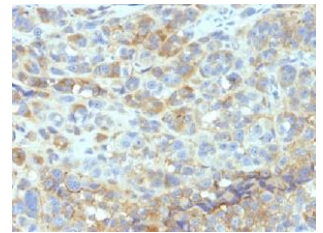


Figure 1: Human melanoma stained with EBS-CD-031 (paraffin).

Species reactivity

Positive: human.

Applications

EBS-CD-031 can be used in immunohistology, immunofluorescence, western blot and ICAM-1 functional studies.

Flow cytometry	Frozen sections	Functional studies	Immunofluorescence	Paraffin sections	Western blot
+	+	+	+	Citrate	+

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02% sodium azide.

Stored at 4°C-8°C, shelf life is at least 24 months after purchase.

Dilution advice

- Flow cytometry (0,5-1,0 µg/million cells in 0,1 ml).
- Functional studies (0,02-2,0 µg/ml without azide).
- Immunoblotting (0,5-1,0 µg/ml).
- Immunohistology (2-4 µg/ml for 30 min at RT; staining of formalin-fixed tissue requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes).

Datasheet



Positive control

Raji cells, MOLT 4 cells, Human tonsils, lymph node.

References

- Boyd et al., *Proc. Nat. Acad. Sci.* **85(9)**, 3095-3099, (1988).
- Boyd et al. *Blood* **73**, 1896-1903, (1989).
- Wawryk et al. *J Clin Pathol* **44**, 497-501 (1991).
- Fecondo et al., *Proc. Nat. Acad. Sci.* **88(7)**, 2879-2882, (1991).